

COAL MINING AND RECLAMATION PERMIT

Issued To: AMERICAN ENERGY CORP
43521 Mayhugh Hill Rd.
Twp Hwy 88
Bealsville, OH 43716

Telephone: (740) 926-9152

Permit Number: D-425
Application Number: D-425-7
Acreage: 0.0
Underground Acreage: 1.5
Effective: 08/21/2008
Expires: 10/21/2009

Type of Operation: Underground (Room and Pillar)

The issuance of this permit means only that the application to conduct a coal mining operation meets the requirements of Chapter 1513 of the Revised Code, and as such DOES NOT RELIEVE the operator of any obligation to meet other federal, state or local requirements.

This permit is issued in accordance with and subject to the provisions, conditions, and limitations of Chapter 1513 of the Revised Code and Chapters 1501:13-1, 1501:13-3 through 1501:13-14 of the Administrative Code.

The water monitoring plan for this permit shall be:

Quality: See Page 26, F3 of the Permit Application

Quantity: See Page 26, F3 of the Permit Application

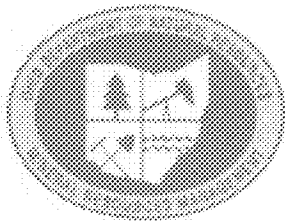
Note: These monitoring requirements are separate from NPDES monitoring requirements.

Signature:

John F. Hunter SE
Chief, Mineral Resources Management

Date: 08/21/2008

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PERMIT SUMMARY SHEET

Division of Mineral Resources Management

Permit Number: D-425

Application Number: D-425-7

See permit cover sheet for specific conditions and hydrologic monitoring requirements.

Inspector's Note:

This summary is designed only to advise you of important provisions of a permit that require your attention and monitoring. Your familiarity with requirements and permitted activities will insure that mining and reclamation occurs as was intended and approved at the time of permit issuance. Please take the time to review relevant provisions of the permit carefully and thoroughly. Should you have questions about this or any permit, please do not hesitate to contact the application manager within the Permitting Section.

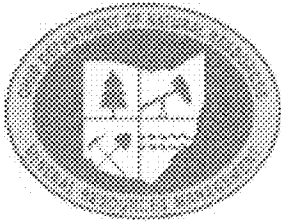
Items marked are applicable to this permit:

- | | |
|--|--|
| <input type="checkbox"/> Auger Mining/Highwall Mining | <input type="checkbox"/> Beneficial Use of CCB's |
| <input type="checkbox"/> Alternate Resoiling Material | <input type="checkbox"/> Public Road Permit |
| <input type="checkbox"/> Blasting Plans | <input type="checkbox"/> Small Area Drainage Exemption (SADE) |
| <input type="checkbox"/> Buffer Zone Variance Request (BZVR) | <input type="checkbox"/> Steep Slope Mining |
| <input type="checkbox"/> Coal Waste Disposal | <input type="checkbox"/> Slurry Impoundment |
| <input type="checkbox"/> Delay in Contemporaneous Reclamation | <input type="checkbox"/> Test Hole Variance |
| <input type="checkbox"/> Excess Spoil Disposal | <input type="checkbox"/> Variance from AOC |
| <input type="checkbox"/> Experimental Mining Practices | <input type="checkbox"/> Wetlands Affectment/Avoidance |
| <input type="checkbox"/> Federal Lands | <input type="checkbox"/> Within 500' of active UG mine |
| <input type="checkbox"/> Mountain Top Removal | <input checked="" type="checkbox"/> Within 500' of abandoned UG mine <i>ANISOW MINE</i> |
| <input type="checkbox"/> MSHA Impoundment | <input type="checkbox"/> Within 100' of a cemetery |
| <input type="checkbox"/> AML No-Cost Area | <input type="checkbox"/> Within 300' of occupied dwelling |
| <input type="checkbox"/> Prime Farmlands | <input type="checkbox"/> Within 300' of public building, church, school, community or institutional building or public |
| <input type="checkbox"/> Remining (Reduced Maintenance) | <input type="checkbox"/> Within 1000' of wild, scenic or recreational river |
| <input type="checkbox"/> Remining (Modified effluent) | <input type="checkbox"/> OEPA 401/COE 404 permits needed for wetlands or stream affectment and/or reconstruction |
| <input type="checkbox"/> Remining BMP only Permit | <input type="checkbox"/> Tree Planting in Reclamation Plans |
| <input type="checkbox"/> Special handling of acid-forming/toxic materials. | |

Application Manager: Scott Stiteler, Environmental Specialist

Date: *8-21-08*

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**APPROVED UNDERGROUND
COAL MINING PERMIT APPLICATION**

Applicant:

Name: AMERICAN ENERGY CORP

Address: 43521 Mayhugh Hill Rd.
Twp Hwy 88
Beallsville, OH 43716

Application Number: D-425-7

Number of acres in underground workings: 1.5

Number of surface acres to be affected: 0.0

The water monitoring plan for this permit shall be:

Quality: See Page 26, F3 of the Permit Application

Quantity: See Page 26, F3 of the Permit Application

Note: These monitoring requirements are separate from NPDES monitoring requirements.

This application is APPROVED since it demonstrates and the Division has found that the criteria in paragraph (E) of rule 1501: 13-5-01 of the Administrative Code have been met.

Signature:

Date:

8-20-08

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OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Mineral Resources Management

WRITTEN FINDINGS

Applicant: American Energy Corporation

Application No.: D-0425-7

(This permit contains shadow area only)

The Division of Mineral Resources Management completed a regulatory review of this application on August 20, 2008. As required in provisions of 1501:13-5-01(E) of the Ohio Administrative Code, the Division's comprehensive review of this application resulted in finding the following:

1. The shadow area is within an area designated as unsuitable for mining pursuant to 1501:13-3-07 of the Ohio Administrative Code. As of this date, three areas within the state have been designated as unsuitable: Guernsey County, Valley Township Sections 7 & 8 (for all coal mining operations); Carroll County, Harrison Township Sections 4 and 5, Center Township Sections 27 and 33, Washington Township Sections 28, 29, 30, 34, 35, and 36 (for full coal recovery underground mining operations); and Belmont County, Smith Township Sections 27, 28, 33, 34 (for surface operations), and Sections 27, 33, 34 (for underground operations above the Meigs Creek No. 9 coal seam).
2. The shadow area is not within an area under study for designation as unsuitable for mining. This finding was determined following a review of lands unsuitable petitions on file with the Division as of 8-20-08.
3. Coal mining operations proposed in this permit application will not affect the continued existence of threatened or endangered species or result in the destruction or adverse modification of their critical habitat as determined under the Endangered Species Act of 1973 (16 U.S.C. 1513 et seq.).

There are several species on the federal list that are found in the coal mining region of Ohio. Sightings of Indiana Bat have been recorded in Belmont and Monroe Counties. Review of the permit application; consultation with the U.S. Department of the Interior, Fish and Wildlife Service dated 12-11-02; and information dated 1-22-03 provided by the Natural Heritage Program administered by the Division of Natural Areas & Preserves; and/or consideration of the endangered and threatened species from the U.S. Fish & Wildlife Service (3/08) offer no indication of listed species having been sighted or critical habitat on or in the vicinity of the application area.

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4. The private mineral estate has been severed from the private surface estate on the surface properties owned by (See Page 7, C.(1)(b) of this permit). This finding is based upon a review of the following documents submitted under Part 1, C(8)(b)(ii) of the permit application. We have determined that these documents allow for the extraction of coal by the mining method(s) identified in the application: Deed Affidavits (See D-0425-3).
5. The applicant and/or any affiliated company has corrected or is in the process of correcting, to the satisfaction of the issuing agencies, all notices of violations/IHCO's and has no unpaid final demand(s) for civil penalty assessments. This finding is based on verification of Division-issued NOV's, IHCO's, and CPA's and review of information through the AVS on 8-18-08. See attached documentation verifying this information. This finding is also based on a records search by Dave Clark from the Cambridge district office on 8-19-2008.
6. The applicant is not delinquent in payment of the Federal reclamation fee required by Section 402 of Public Law 95-87 based on review of the AVS on 8-18-08. See attached AVS printout.
7. The applicant (and the operator, if applicable) does not control and has not controlled mining operations with a demonstrated pattern of willful violations of Chapter 1513. of the Revised Code and rules adopted thereunder of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with such provisions. This finding is based on a records search by Dave Clark from the Cambridge district office on 8-19-2008.
8. The Division has reviewed and the chief has approved each of the following items pursuant to 1501:13-01 through 1501:13-14 of the Ohio Administrative Code:

NONE

<input type="checkbox"/>	Buffer Zone Variance Request: <i>Date of approval</i> _____
<input type="checkbox"/>	Test Hole Variance Request: <i>Date of approval</i> <u>2-13-04 6-30-04</u>
<input type="checkbox"/>	Small Area Drainage Exemption: <i>Date of approval</i> _____
<input type="checkbox"/>	Road Permit: <i>Date of approval</i> _____
<input type="checkbox"/>	Alternative Resoiling Material: <i>Date of approval</i> _____
<input type="checkbox"/>	Beneficial use of CCP's
<input type="checkbox"/>	Other permits necessary to operate are issued or applied for including: NPDES, 404, 401, others _____, or the permit is conditioned appropriately.

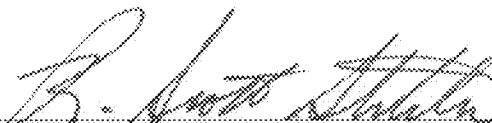
Refer to the administrative file for documentation of any other specific approvals required.

9. Coal mining and reclamation to be performed under this permit will be consistent with other operations to be performed during the same permit term in areas adjacent to the permit area. This finding is based upon the Division's review of the permit application and adjacent proposed or existing permit areas, including: See Permit List and Pending Application List located in the permit application.
10. Based on our hydrologist's review of Part 2, Items B, C, D, E, F and Part 3, Items A(7), D(9), E, F, H of the permit application as documented in the Cumulative Hydrologic Impact Assessment (CHIA), we find that the proposed operations have been designed to prevent damage to the hydrologic balance outside the permit area.
11. The probable cumulative hydrologic impact for this mining operation area and adjacent areas on the hydrologic regime and water availability is: See attached CHIA. This finding is based upon the Division's hydrologist's a comprehensive review of the permit application, Hydrologic Inventory, analysis of existing ground water data maintained by the Division of Water, and other available hydrological and geological data which is part of the permit application. These findings are summarized in the (CHIA) completed by the Division's hydrologist on: See CHIA for D-0425-3.
12. Based upon the Division's review of the permit application: use of reasonable mining and reclamation practices proposed in the application: technical review by the Division's engineers, hydrologists, soil scientists, and other technical experts; consultation with other agencies; and the Division's previous experience with the applicant (if applicable), the chief of the Division has found that the mining and reclamation plans contained in Parts 2, 3, and 4 of the application can be feasibly and responsibly accomplished.
13. To protect against possible adverse effects of the proposed mining operations on properties listed or eligible for listing on the National Register of Historic Places, the Chief of the Division has implemented one of the following three actions after considering information provided by the Division Archaeologist and the SHPO dated 8-15-03:

	The permit is conditionally approved with strict limitations on mining activities in and around the historic resources. Please refer to the permit approval document that includes special conditions designed to protect historic resources that are applicable to this permit.
	Prior to application approval, the Chief requested specific revisions to the proposed mining and reclamation plan so that impacts to the historic resources on the permit area are eliminated and/or minimized. Submitted revisions are reflected in the permit application.
X	Following review by the Division's Archaeologist and representatives of the State Historic Preservation Office (SHPO), the Chief determined in a written finding that no additional protective measures are needed to protect the historic resource(s) found on the shadow area.

14. The Division of Mineral Resources Management has determined that permit application number D-0425-7 submitted on 2-19-08, is accurate, complete, and complies with the requirements of Chapter 1513 of the Ohio Revised Code and all rules adopted thereunder.

 X There are no special conditions on this permit.



(Application Manager)

8-20-08

(Date)



(Chief, Division of Mineral Resources Management)

8-20-08

(Date)

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT
UNDERGROUND COAL MINING AND RECLAMATION
PERMIT APPLICATION

RECEIVED

JAN 22 2008

Applicant's Name American Energy Corporation

DIVISION OF MINERAL RESOURCES
CAMBRIDGE

A. Type of Operation (check appropriate space(s)):

☐ Shaft, ☐ Slope, ☐ Drift,
☒ Room and Pillar, ☐ Pillar Extraction,
☐ Longwall, ☐ Combined Surface and Underground

B. Type of Application (check appropriate space(s)):

(1) ☐ New
(2) ☐ Initial Underground Workings to Existing Permit
(3) ☒ Additional Underground Workings

C. Address the following if applicable:

(1) Permit Number D-0425
(2) Date Issued October 22, 1984

D. Did a person other than an employee of the applicant prepare this application?
Yes, ☒ No ☐ If "yes," provide:

Preparer's Name Jack A. Hamilton & Assoc., Inc.
Address P.O. Box 471, 342 High Street
City Flushing State Ohio Zip 43977
Telephone 740 - 968 - 4947

E. I, the undersigned, a responsible official of the applicant, do hereby verify the information in the complete permit application as true and correct to the best of my information and belief.

Printed Name James R. Turner Jr.; Title Treasurer

Signature [Signature]; Date 1/11/08

Sworn before me and subscribed in my presence this 11th day of Jan., 2008.



KATHY J. ROE
Notary Public, State of Ohio
My Commission Expires Dec. 14, 2009

Kathy J. Roe
Notary Public

03/06
DNR-744-9009

D - 0425 - 7

D - 0425 - 7

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AEC 19080

F. For Revision Review Only. This item is to be completed after revisions, if any, have been made to the permit application.

I, the undersigned, a responsible official of the applicant, do hereby verify and acknowledge the revisions made during the permit review process as true and correct to the best of my information and belief.

Printed Name JAMES A. WARD Title TREASURER

Signature [Signature] Date 6/4/08

Sworn before me and subscribed in my presence this 4th day of June, 2008.



Jean M. Snyder
Notary Public, State of Ohio
My Commission Expires 3-21-12

[Signature]
Notary Public

PART 1. LEGAL, FINANCIAL, COMPLIANCE, AND RELATED INFORMATION

A. IDENTIFICATION OF INTERESTS

(1) Applicant's Name American Energy Corporation

Address 43521 Mayhugh Hill Road

City Beallsville State Ohio Zip 43716

Telephone 740-926-9152

Employer Identification No. (EIN) _____

Social Security No. (SSN) _____

(2) Indicate business structure of applicant and additional information:

___ Single proprietorship,

___ Partnership (registration no. and date obtained) _____

☒ Corporation (charter no. and date incorporated)

00842695, 4/12/93

___ Association,

___ Other, specify _____

(3) If the applicant is a single proprietorship, provide the following:

Owner's Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____

EIN _____, or SSN _____

Beginning date of ownership _____

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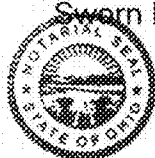
F. For Revision Review Only. This item is to be completed after revisions, if any, have been made to the permit application.

I, the undersigned, a responsible official of the applicant, do hereby verify and acknowledge the revisions made during the permit review process as true and correct to the best of my information and belief.

Printed Name JAMES R. TAYLOR Title TREASURER

Signature [Signature] Date 7/24/08

Sworn before me and subscribed in my presence this 24th day of July, 2008.



KATHY J. ROE

Notary Public, State of Ohio

My Commission Expires Dec. 14, 2009

[Signature]
Notary Public

PART 1. LEGAL, FINANCIAL, COMPLIANCE, AND RELATED INFORMATION

A. IDENTIFICATION OF INTERESTS

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Address 43521 Mayhugh Hill Road

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☐ Partnership (registration no. and date obtained)

☒ Corporation (charter no. and date incorporated)

00842695, 4/12/93

☐ Association,

☐ Other, specify

(3) If the applicant is a single proprietorship, provide the following:

Owner's Name

Address

City State Zip

Telephone - -

EIN, or SSN

Beginning date of ownership

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- (4) If the applicant is a business entity other than a single proprietorship, provide the following for the applicant's statutory agent and submit Owners & Controllers.

Agent's Name CT Corporation

Address 1300 East 9th Street

City Cleveland State Ohio Zip 44114

Telephone 216 - 621-4270

EIN _____ r SSN (optional) _____

- (5) Is the operator of the mine to be a person different from the applicant? Yes, No. If "yes," provide the operator's name and submit Operator Ownership & Control. (Note: if more than one operator, indicate operator's name and submit a separate attachment for each.)

Operator's Name _____

- (6) Provide the following for the person who will pay the abandoned mine land reclamation fee for the applicant.

Name American Energy Corporation

Address 43521 Mayhugh Hill Road

City Beallsville State Ohio Zip 43716

Telephone 740-926-9152

EIN _____ r SSN (optional) _____

- (7) Provide the following for all persons having the authority or ability to commit the financial, real property assets, or working resources of the applicant who are not otherwise identified as officers, directors, or owners of the applicant. If none, check box: [x]. If any person listed is a business entity and not an individual, also complete Owners & Controllers for that person.

Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____-_____-_____

EIN _____, or SSN _____

Date O & C relationship began/ended (if applicable)

_____/_____/_____

Submit and identify additional pages necessary to complete response.

JUN 09 2008

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

OWNERS AND CONTROLLERS

Applicant's Name **American Energy Corporation**

This attachment is to be completed and submitted with the permit application if the applicant is other than a single proprietorship. Provide the following for all partners, officers, directors, and stockholders owning ten percent or more of any class of voting stock or other instruments of ownership, and any other person performing a function similar to a director. Persons holding or who have held multiple positions must be listed separately for each position. If any owner or controller listed is a business entity and not an individual, also complete an Owners and Controllers for that business entity.

Name of business entity **American Energy Corporation**

Name **Murray Energy Corporation** 152552

Street address **43521 Mayhugh Hill Road**

City **Beallsville** State **Ohio** Zip **43716**

EIN **N/A** SSN **N/A**

Title of position within entity **Shareholder**

Date position assumed/ended (if applicable) **02-23-01**

Percent of ownership **100** Date of ownership **02-23-01**

Name **Robert E. Murray**

Street address **43521 Mayhugh Hill Road**

City **Beallsville** State **Ohio** Zip **43716**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Director, President**

Date position assumed/ended (if applicable) **12-15-04**

Percent of ownership **0** Date of ownership **N/A**

Name **Michael McKown**

Street address **43521 Mayhugh Hill Road**

City **Beallsville** State **Ohio** Zip **43716**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Secretary**

Date position assumed/ended (if applicable) **11-1-99**

Percent of ownership **0** Date of ownership **N/A**

Submit and identify additional pages necessary to complete response.

Part 1: Section A

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

OWNERS AND CONTROLLERS

Applicant's Name **American Energy Corporation**

This attachment is to be completed and submitted with the permit application if the applicant is other than a single proprietorship. Provide the following for all partners, officers, directors, and stockholders owning ten percent or more of any class of voting stock or other instruments of ownership, and any other person performing a function similar to a director. Persons holding or who have held multiple positions must be listed separately for each position. If any owner or controller listed is a business entity and not an individual, also complete an Owners and Controllers for that business entity.

Name of business entity **American Energy Corporation**

Name **James Turner Jr**

Street address **43521 Mayhugh Hill Road**

City **Beallsville** State **Ohio** Zip **43716**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Treasurer**

Date position assumed/ended (if applicable) **03-01-05/ /**

Percent of ownership **0** Date of ownership **N/A**

Name **Robert Putsock**

Street address **43521 Mayhugh Hill Road**

City **Beallsville** State **Ohio** Zip **43716**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Assistant Treasurer**

Date position assumed/ended (if applicable) **1-27-04/ /**

Percent of ownership **0** Date of ownership **N/A**

Name

Street address

City State Zip

EIN , or SSN

Title of position within entity

Date position assumed/ended (if applicable) /

Percent of ownership Date of ownership

Submit and identify additional pages necessary to complete response.

Part 1: Section A

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

OWNERS AND CONTROLLERS

Applicant's Name **American Energy Corporation**

This attachment is to be completed and submitted with the permit application if the applicant is other than a single proprietorship. Provide the following for all partners, officers, directors, and stockholders owning ten percent or more of any class of voting stock or other instruments of ownership, and any other person performing a function similar to a director. Persons holding or who have held multiple positions must be listed separately for each position. If any owner or controller listed is a business entity and not an individual, also complete an Owners and Controllers for that business entity.

Name of business entity **Murray Energy Corporation**

Name **Murray Energy Holdings Corporation**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN : SSN

Title of position within entity **Shareholder**

Date position assumed/ended (if applicable) **02/23/01/N/A**

Percent of ownership **100** Date of ownership **N/A**

Name **Robert E. Murray**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Chairman, President & CEO**

Date position assumed/ended (if applicable) **02/23/01/N/A**

Percent of ownership **0** Date of ownership **N/A**

Name **Michael D. Loiacono**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Treasurer**

Date position assumed/ended (if applicable) **02/23/01/N/A**

Percent of ownership **0** Date of ownership **N/A**

Submit and identify additional pages necessary to complete response.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

OWNERS AND CONTROLLERS

Applicant's Name **American Energy Corporation**

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Name of business entity **Murray Energy Corporation**

Name **Richard L. Lawson**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Director**

Date position assumed/ended (if applicable) **01/28/05/N/A**

Percent of ownership **0** Date of ownership **N/A**

Name **Andrew D. Weissman**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Director**

Date position assumed/ended (if applicable) **10/23/03/N/A**

Percent of ownership **0** Date of ownership **N/A**

Name **Henry W. Fayne**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Director**

Date position assumed/ended (if applicable) **01/28/05/N/A**

Percent of ownership **0** Date of ownership **N/A**

Submit and identify additional pages necessary to complete response.

Part 1: Section A

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

OWNERS AND CONTROLLERS

Applicant's Name **American Energy Corporation**

This attachment is to be completed and submitted with the permit application if the applicant is other than a single proprietorship. Provide the following for all partners, officers, directors, and stockholders owning ten percent or more of any class of voting stock or other instruments of ownership, and any other person performing a function similar to a director. Persons holding or who have held multiple positions must be listed separately for each position. If any owner or controller listed is a business entity and not an individual, also complete an Owners and Controllers for that business entity.

Name of business entity **Murray Energy Corporation**

Name **Robert D. Moore**

Street address **43521 Mayhugh Hill Road**

City **Beallsville** State **Oh** Zip **43716**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Vice President/Director/CFO**

Date position assumed/ended (if applicable) **12/17/04 VP 4/23/07 Director & CFO/N/A**

Percent of ownership **0** Date of ownership **N/A**

Name **P. Bruce Hill**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Vice President/Human Resources**

Date position assumed/ended (if applicable) **12/18/03/6/10/05**

Percent of ownership **0** Date of ownership **N/A**

Name **Michael O. McKown**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Secretary**

Date position assumed/ended (if applicable) **02/23/01/N/A**

Percent of ownership **0** Date of ownership **N/A**

Submit and identify additional pages necessary to complete response.

Part 1: Section A

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

OWNERS AND CONTROLLERS

Applicant's Name **American Energy Corporation**

This attachment is to be completed and submitted with the permit application if the applicant is other than a single proprietorship. Provide the following for all partners, officers, directors, and stockholders owning ten percent or more of any class of voting stock or other instruments of ownership, and any other person performing a function similar to a director. Persons holding or who have held multiple positions must be listed separately for each position. If any owner or controller listed is a business entity and not an individual, also complete an Owners and Controllers for that business entity.

Name of business entity **Murray Energy Holding Corporation**

Name **Robert D. Moore**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **President, Director, & CEO**

Date position assumed/ended (if applicable) **04/23/07/N/A**

Percent of ownership **0** Date of ownership **N/A**

Name **Robert E. Murray**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Director & Shareholder**

Date position assumed/ended (if applicable) **06/30/03/N/A**

Percent of ownership **40** Date of ownership **06/30/03**

Name **Michael D. Loiacono**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Treasurer**

Date position assumed/ended (if applicable) **01/10/05/N/A**

Percent of ownership **0** Date of ownership **N/A**

Submit and identify additional pages necessary to complete response.

Part 1: Section A

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

OWNERS AND CONTROLLERS

Applicant's Name **American Energy Corporation**

This attachment is to be completed and submitted with the permit application if the applicant is other than a single proprietorship. Provide the following for all partners, officers, directors, and stockholders owning ten percent or more of any class of voting stock or other instruments of ownership, and any other person performing a function similar to a director. Persons holding or who have held multiple positions must be listed separately for each position. If any owner or controller listed is a business entity and not an individual, also complete an Owners and Controllers for that business entity.

Name of business entity **Murray Energy Holding Corporation**

Name **Michael McKown**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Secretary & Director**

Date position assumed/ended (if applicable) **06/30/03/N/A**

Percent of ownership **0** Date of ownership **N/A**

Name **Robert Edward Murray**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Shareholder**

Date position assumed/ended (if applicable) **06/30/03/N/A**

Percent of ownership **20** Date of ownership **06/30/03**

Name **Ryan Michael Murray**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Shareholder**

Date position assumed/ended (if applicable) **06/30/03/N/A**

Percent of ownership **20** Date of ownership **06/30/03**

Submit and identify additional pages necessary to complete response.

Part 1: Section A

AUG 05 2008

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

OWNERS AND CONTROLLERS

Applicant's Name **American Energy Corporation**

This attachment is to be completed and submitted with the permit application if the applicant is other than a single proprietorship. Provide the following for all partners, officers, directors, and stockholders owning ten percent or more of any class of voting stock or other instruments of ownership, and any other person performing a function similar to a director. Persons holding or who have held multiple positions must be listed separately for each position. If any owner or controller listed is a business entity and not an individual, also complete an Owners and Controllers for that business entity.

Name of business entity **Murray Energy Holding Corporation**

Name **Jonathan Robert Murray**

Street address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Oh** Zip **44122**

EIN **N/A**, or SSN **Decline**

Title of position within entity **Shareholder**

Date position assumed/ended (if applicable) **06/30/03/N/A**

Percent of ownership **20** Date of ownership **06/30/03**

Name

Street address

City State Zip

EIN , or SSN

Title of position within entity

Date position assumed/ended (if applicable) / /

Percent of ownership Date of ownership

Name

Street address

City State Zip

EIN , or SSN

Title of position within entity

Date position assumed/ended (if applicable) / /

Percent of ownership Date of ownership

Submit and identify additional pages necessary to complete response.

Part 1: Section A

AUG 05 2008

ORIGINAL

- (8) Provide the following for all persons owning or controlling the coal to be mined by another person under a lease, sublease, or other contract and (a) having the right to receive the coal after mining, or (b) having the authority to determine the manner in which another person conducts coal mining operations. If none, check box: [☒]. If any person listed is a business entity and not an individual, also complete Owners & Controllers for that person.

Name _____

Address _____

City _____ State _____ Zip _____

Telephone ____ - ____ - _____

EIN _____, or SSN _____

O & C relationship to entity

Date O & C relationship began/ended (if applicable) _____ / _____

Submit and identify additional pages necessary to complete response.

- (9) List below the person or persons primarily responsible for ensuring that the applicant will comply with Chapter 1513. of the Revised Code and the rules adopted pursuant thereto while mining and reclaiming the area for which this permit is requested.

James R. Turner

- (10) Has the applicant, any person listed under items A(3), (7), and (8), or any person listed on Owners and Controllers who "owned or controlled" or "owns or controls" as defined in 1501:13-4-03(A), held a coal mining permit in the United States within the five years preceding the date of the application? ☒ Yes, ____ No. If "yes," submit Permit List.
- (11) Does the applicant, any person listed under items A(3), (7), and (8), or any person listed on Owners & Controllers have a pending coal mining application in any state of the United States? ☒ Yes, ____ No. If "yes," submit Pending Application List.
- (12) Indicate name of mine Century
- (13) List below the MSHA identification numbers for the mine and for all mine-associated structures requiring MSHA approval on the proposed permit area.
- 33-01070**
- (14) Submit Certificate of Insurance.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

RECEIVED

DEC 12 2007

PERMIT LIST

DIVISION OF MINERAL RESOURCES
CAMBRIDGE

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **Maple Creek Mining Company**

Address **981 Route 917**

City **Bentleville** State **PA** Zip **15314**

Telephone **724-258-2056**

EIN or SSN

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
63841302	PA	DEP	36-00970/6-30-95
63733706	PA	DEP	36-00970/6-30-95
63723707	PA	DEP	36-00970/6-30-95

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray, Director

Part 1: Section A

Revised 02/06
DNR-744-9014

ORIGINAL

AEC 19093

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PERMIT LIST

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **American Energy Corporation**
Address **43521 Mayhugh Hill Road Twp. Highway 88**
City **Beallsville** State **OH** Zip **43716**
Telephone **740-926-9152**
EIN r SSN

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
D-0425	OH	DMRM	33-01070/10-22-84
D-1159	OH	DMRM	33-02122/01-26-98

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray, shareholder 100%

Part 1: Section A

Revised 02/06
DNR-744-9014

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PERMIT LIST

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **The American Coal Company**

Address **29325 Chagrin Blvd**

City **Pepper Pike** State **OH** Zip **44122**

Telephone **216-765-1240**

EIN _____ or SSN _____

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
02	IL	OFFICE OF MINES AND MINERALS	11-02752/10-14-98
255	IL	OFFICE OF MINES AND MINERALS	11-02752/10-14-98
257	IL	OFFICE OF MINES AND MINERALS	11-02752/10-14-98
306	IL	OFFICE OF MINES AND MINERALS	11-02752/10-14-98
352	IL	OFFICE OF MINES AND MINERALS	11-02752/10-14-98
1410	IL	OFFICE OF MINES AND MINERALS	11-02752/10-14-98

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray, President

Part 1: Section A

Revised 02/06
DNR-744-9014

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PERMIT LIST

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **The Ohio Valley Coal Company**
Address **56854 Pleasant Ridge Road**
City **Alledonia** State **OH** Zip **43902**
Telephone **740-926-1351**
EIN SSN

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
D-0360	OH	DMRM	33-01159/5-27-88

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Part 1: Section A

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PERMIT LIST

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **The Oklahoma Coal Company**

Address **29325 Chagrin Blvd**

City **Pepper Pike** State **OH** Zip **44122**

Telephone **216-765-1240**

EIN or SSN

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
D-0230	OH	DMRM	N/A

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray, shareholder 100%

Part 1: Section A

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PERMIT LIST

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **UMCO Energy Inc.**

Address **981 Route 917**

City **Bentleyville** State **PA** Zip **15314**

Telephone **724-258-2056**

EIN or SSN

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
63921301	PA	DEP	36-08375/6-8-94

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray, Director

Part 1: Section A

Revised 02/06
DNR-744-9014

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PERMIT LIST

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **UtahAmerican Energy, Inc.**
Address **375 South Carbon Ave., Suite 127**
City **Price** State **Utah** Zip **84501**
Telephone **435-888-4000**
EIN SSN

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
ACT/007/013	UT	DOGM	42-00100/12-10-84
ACT/007/013	UT	DOGM	42-02241/2-24-99
ACT/007/019	UT	DOGM	42-02028/4-1-89
ACT/007/041	UT	DOGM	42-02233/3-1-99
ACT/015/032	UT	DOGM	42-01715/11-22-83

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray, shareholder 100%

Part 1: Section A

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PERMIT LIST

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **TDK Coal Sales**

Address **PO Box 259**

City **Brockway** State **PA** Zip **15824**

Telephone **814-865-8021**

EIN SSN

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
03960103	PA	DEP	36-07707/1-14-97
03940101	PA	DEP	36-07707/6-6-95
16910104	PA	DEP	36-07707/5-11-92
33960109	PA	DEP	36-07707/3-03-98
16980102	PA	DEP	36-07707/9-10-98
24970104	PA	DEP	36-08867/9-10-98

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Part 1: Section A

ORIGINAL

Revised 02/06
DNR-744-9014

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PERMIT LIST

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **PENNAMERICAN COAL, LP**

Address **PO Box 459**

City **Black Lick State PA** Zip **15716-0459**

Telephone **724-248-1327**

EIN or SSN

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
32951301	PA	DEP	36-08525

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray, Shareholder

Part 1: Section A

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PERMIT LIST

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **OHIOAMERICAN ENERGY, INCORPORATED**

Address **29325 Chagrin Blvd., Suite 300**

City **Pepper Pike** State **OH** Zip **44122**

Telephone **216-765-1240**

EIN or SSN

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
D-2180	OH	DMRM	33-04387
D-2291	OH	DMRM	33-04550
D-2304	OH	DMRM	33-04550
D-2312	OH	DMRM	33-04550

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Part 1: Section A

Revised 02/06
DNR-744-9014

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ORIGINAL

AEC 19102

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PERMIT LIST

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **Energy Resources, Inc.**

Address **PO Box 259**

City **Brockway** State **PA** Zip **15824**

Telephone **814-265-8021**

EIN or SSN

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
24030102	PA	DEP	36-02695/05-25-88
33901602	PA	DEP	36-02695/05-25-88
17930120	PA	DEP	36-02695/05-25-88
24880101	PA	DEP	36-02695/05-25-88
24880103	PA	DEP	36-02695/05-25-88
24890101	PA	DEP	36-02695/05-25-88
24890102	PA	DEP	36-02695/05-25-88
24990101	PA	DEP	36-02695/05-25-88
24970101	PA	DEP	36-02695/05-25-88
24980101	PA	DEP	36-02695/05-25-88

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray, shareholder 100%

Part 1: Section A

Revised 02/06
DNR-744-9014

ORIGINAL

AEC 19103

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PERMIT LIST

Applicant's Name **American Energy Corporation**

Submit the following information for each coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant.

Name of Business Entity **Energy Resources, Inc.**

Address **PO Box 259**

City **Brockway** State **PA** Zip **15824**

Telephone **814-265-8021**

EIN or SSN

Permit Number	State	Regulatory Authority	MSHA Number and Date Issued
24010101	PA	DEP	36-02695/05-25-88
24900104	PA	DEP	36-02695/05-25-88
24900103	PA	DEP	36-02695/05-25-88
24960101	PA	DEP	36-02695/05-25-88
24970102	PA	DEP	36-02695/05-25-88
24970103	PA	DEP	36-02695/05-25-88

If not previously provided, indicate the ownership or control relationship of the business entity with the applicant, including percent of ownership and location in organizational structure:

Robert E. Murray, shareholder 100%

Part 1: Section A

Revised 02/06
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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PENDING APPLICATION LIST

Applicant's Name **American Energy Corporation**

Provide the following information for each pending coal mining application for either the applicant or any person who owns or controls the applicant.

Indicate the business entity for which this listing has been completed
Belmont Coal, Inc.

Application No.	Name of Regulatory Authority	State
10168	DMRM	OH

Part 1: Section A

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PENDING APPLICATION LIST

Applicant's Name **American Energy Corporation**

Provide the following information for each pending coal mining application for either the applicant or any person who owns or controls the applicant.

Indicate the business entity for which this listing has been completed
Energy Resources, Inc.

Application No.	Name of Regulatory Authority	State
17841607	DEP	PA
17823701	DEP	PA

Part 1: Section A

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PENDING APPLICATION LIST

Applicant's Name **American Energy Corporation**

Provide the following information for each pending coal mining application for either the applicant or any person who owns or controls the applicant.

Indicate the business entity for which this listing has been completed
TDK Coal Sales, Inc.

Application No.	Name of Regulatory Authority	State
17814607	DEP	PA
17823701	DEP	PA

Part 1: Section A

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PENDING APPLICATION LIST

Applicant's Name **American Energy Corporation**

Provide the following information for each pending coal mining application for either the applicant or any person who owns or controls the applicant.

Indicate the business entity for which this listing has been completed
UMCO Energy, Inc. - High Quality Mine

Application No.	Name of Regulatory Authority	State
63921301	PA DEP	PA

Part 1: Section A

ORIGINAL

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PENDING APPLICATION LIST

Applicant's Name **American Energy Corporation**

Provide the following information for each pending coal mining application for either the applicant or any person who owns or controls the applicant.

Indicate the business entity for which this listing has been completed
THE OHIO VALLEY COAL COMPANY

Application No.	Name of Regulatory Authority	State
D-0360-14	DMRM	OHIO
D-0360-15	DMRM	OHIO
D-0360-18	DMRM	OHIO
D-0360-19	DMRM	OHIO

Part 1: Section A

Revised 02/06
DNR-744-9035

JUN 09 2008

ORIGINAL

AEC 19109

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PENDING APPLICATION LIST

Applicant's Name **American Energy Corporation**

Provide the following information for each pending coal mining application for either the applicant or any person who owns or controls the applicant.

Indicate the business entity for which this listing has been completed
KENAMERICAN COAL COMPANY

Application No.	Name of Regulatory Authority	State
889-5009 R-8	natural resources & environmental cabinet - Dept of surface mining reclamation and enforcement	KY
889-9004	natural resources & environmental cabinet - Dept of surface mining reclamation and enforcement	KY

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

PENDING APPLICATION LIST

Applicant's Name **American Energy Corporation**

Provide the following information for each pending coal mining application for either the applicant or any person who owns or controls the applicant.

Indicate the business entity for which this listing has been completed
American Energy Corporation

Application No.	Name of Regulatory Authority	State
D-0425-8	DMRM	OHIO

Part 1: Section A

Revised 02/06
DNR-744-9035

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ORIGINAL

AEC 19111

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

CERTIFICATE OF INSURANCE

Name of Insured **American Energy Corporation**

This is to certify that the policy of insurance listed below has been issued to the above named insured and is in force at this time. The policy provides bodily injury and property damage insurance for all coal mining and reclamation operations of the insured in the state of Ohio as required by 1501.13-7-07 of the Administrative Code stated below.

Name of Insurer **Federal Insurance Company**

Policy Number **37104410**

Policy Period **06/01/08 - 06/01/09**

Name of Underwriting Agent **Karen Williams % Reschini Agency, Inc.**

Address of Underwriting Agent **922 Philadelphia Street
Indiana, PA 15701**

Telephone No. of Underwriting Agent **724-349-1300**

In the event of cancellation or non-renewal of this policy, including non-payment of policy premiums, the insurer agrees to promptly notify: The Division of Mineral Resources Management, 2045 Morse Road, Building H-3, Columbus, Ohio 43229-6693.

5/22/08
Date

Karen Williams
Signature of Underwriting Agent

This certificate is issued as a matter of information only and confers no rights upon the Division of Mineral Resources Management. This certificate does not amend, extend or alter the coverage afforded by the policy listed above.

1501.13-7-07(B) THE PUBLIC LIABILITY INSURANCE POLICY SHALL:

- (1) BE IN EFFECT DURING THE TERM OF THE PERMIT OR ANY RENEWAL, INCLUDING THE LENGTH OF ALL RECLAMATION OPERATIONS;
- (2) PROVIDE FOR PERSONAL INJURY AND PROPERTY DAMAGE PROTECTION IN AMOUNTS ADEQUATE TO COMPENSATE ANY PERSONS INJURED OR PROPERTY DAMAGED AS A RESULT OF COAL MINING AND RECLAMATION OPERATIONS, INCLUDING THE USE OF EXPLOSIVES. THE MINIMUM INSURANCE COVERAGE FOR BODILY INJURY AND PROPERTY DAMAGE SHALL BE THREE HUNDRED THOUSAND DOLLARS FOR EACH OCCURRENCE AND FIVE HUNDRED THOUSAND DOLLARS IN THE AGGREGATE; AND
- (3) INCLUDE A RIDER REQUIRING THAT THE INSURER NOTIFY THE CHIEF WHENEVER SUBSTANTIVE CHANGES ARE MADE IN THE POLICY, INCLUDING ANY TERMINATION OR FAILURE TO RENEW.

Part 1: Section A

B. COMPLIANCE INFORMATION

- (1) Has the applicant, any subsidiary, affiliate, or persons controlled by or under common control with the applicant:
- (a) Had a federal or state coal mining permit suspended or revoked in the five years preceding the date of submission of this application?
____ Yes, x No. If "yes," submit Suspension, Revocation & Forfeiture List.
- (b) Forfeited a mining bond or similar security deposited in lieu of bond?
____ Yes, x No. If "yes," submit Suspension, Revocation & Forfeiture List.
- (2) Has the applicant been issued a notice of violation (NOV) in connection with any coal mining and reclamation operation during the three years preceding the date of submission of this application for violations of Chapter 1513, of the Revised Code or these rules, or of any federal or state law, rule, or regulation pertaining to air or water environmental protection? x Yes, ____ No. If "yes," submit NOV List.
- (3) Have any unabated federal or state cessation orders (COs) and unabated air and water quality notices of violations (NOVs) been received prior to the submission date of this application by any coal mining and reclamation operation owned or controlled by either the applicant or by any person who owns or controls the applicant? ____ Yes, x No. If "yes," submit Unabated Violations.

ORIGINAL

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DIVISION OF MINERAL RESOURCES
CAMBRIDGEOHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

NOV LIST

Applicant's Name **American Energy Corporation**

Permit Number	Violation Number	Date of Issuance	Issuing Agency	State	Brief Description of NOV	Action Taken to Abate NOV	Current Status of NOV (*)
D-0425	21807	1-25-05	ODNR	OH	W-401 Water Buffalo is out of water at the Neal Moore dairy farm site	Restored W-401 water buffalo by filling with water	terminated 1/25/05 9:00 P.M.
D-0425	19695	4-27-05	ODNR	OH	Operator failed to maintain Pond 008-A and sump (next to 018-A)	Reconstruct embankment to pond 008-A and sump	Terminated 6/10/05
D-0425	19696	4-27-05	ODNR	OH	Coal has come off and accumulated downslope of the raw stockpile increasing PH and iron levels in Pond 008-A	remove all coal that has accumulated downslope of the raw stockpile	Terminated 6/10/05
D-0425	19697	4-27-05	ODNR	OH	Failure to maintain haul road/access road between pond 011 and 008 series pond	construct sumps to control drainage coming off roadway	Terminated 6/10/05
D-0425	1-11726	8-23-05	ODNR	OH	uncontrolled discharge	isolate and clean spill	Terminated 6/30/05
D-0425	21871	10-3-05	ODNR	OH	Failure to submit site specific plans and time schedule for repair or mitigation for the Moore farm	came to an agreement with land owner on remedial actions	Terminated 8/2/06
D-1159	21860	9-15-06	ODNR	OH	Failure to segregate and stockpile prime farmland soils prior to disturbance	Segregate stockpile and protect prime farmland soil necessary for PFL restoration	Terminated 12/31/06
D-0425	28434	6-27-07	ODNR	OH	Failure to provide written notice to surface owner at least six months prior to undermining	non-remedial	

ORIGINAL

Revised 02/06
DNR-744-9016

C. RIGHT OF ENTRY INFORMATION

- (1)(a) Provide the following information for every legal or equitable owner of record, surface and mineral, of the property to be mined on the permit area (i.e. areas affected by surface operations and facilities), indicating whether the ownership is of surface, coal or non-coal mineral. **N/A**

Name _____

Address _____

City _____ State _____ Zip _____

Surface _____, Coal _____, Non-coal Mineral _____

Deed Parcel No. _____

Name _____

Address _____

City _____ State _____ Zip _____

Surface _____, Coal _____, Non-coal Mineral _____

Deed Parcel No. _____

Name _____

Address _____

City _____ State _____ Zip _____

Surface _____, Coal _____, Non-coal Mineral _____

Deed Parcel No. _____

Name _____

Address _____

City _____ State _____ Zip _____

Surface _____, Coal _____, Non-coal Mineral _____

Deed Parcel No. _____

ORIGINAL

C.(1)(b)

Provide the following information for every legal or equitable owner of the property to be mined covered by the underground workings indicating whether ownership is for the surface or coal.

Name Carol A. Baker

Address 55341 Pugh Ridge Road

City Alledonia State Ohio Zip 43902

Surface x, Coal _____, Non-coal Mineral _____

Deed Parcel No. 2-13-3, 4300812

Name Paula & Gary Moore

Address 1734 Forest Hills Circle

City Zanesville State Ohio Zip 43701

Surface x, Coal _____, Non-coal Mineral _____

Deed Parcel No. 2-13-170

Name Jason M. May

Address 54081 Pugh Ridge Road

City Alledonia State Ohio Zip 43902

Surface x, Coal _____, Non-coal Mineral _____

Deed Parcel No. 2-13-170

Name Consolidated Land Company

Address 29325 Chagrin Boulevard, Suite 300

City Pepper Pike State Ohio Zip 43716

Surface _____, Coal X, Non-coal Mineral _____

Deed Parcel No. 2-13-170, 4300812, 2-13-3

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- C. (2) Provide the following information for the holders of record of any leasehold interest in the coal to be mined or property to be affected by surface operations or facilities, indicating whether the held interest is of surface, coal or non-coal rights.

Name Consolidated Land Company

Address 29325 Chagrin Boulevard, Suite 300

City Pepper Pike State Ohio Zip 44122

Surface ☐ Coal ☒ Non-coal Mineral ☐

Name American Energy Corporation

Address 43521 Mayhugh Hill Road

City Beallsville State Ohio Zip 43716

Surface ☐ Coal ☒ Non-coal Mineral ☐

Submit and identify additional pages necessary to complete response.

- (3) Are there purchasers of record under a real estate contract of the coal to be mined or property to be affected by surface operations and facilities?
☐ Yes, ☒ No. If "yes," submit Purchasers of Record.
- (4) Is any owner, holder, or purchaser listed in items C(1) (a and b), (2), or (3) respectively, a business entity other than a single proprietorship?
☒ Yes, ☐ No. If "yes," submit Other Business Entities.
- (5) Is any part of the proposed permit area adjacent to any lands which are not owned by those persons identified in item C(1)(a)? ☐ Yes, ☒ No. If "yes," submit Adjacent Owners.
- (6) Does the applicant hold lands, interests in lands, options, or pending bids on interests for lands that are contiguous to the property to be mined?
☐ Yes, ☒ No. If "yes," provide a description of the lands.
- (7) Is it anticipated that individual mining permits will be sought for any of those lands described in item C(6) above? ☐ Yes, ☒ No. If "yes," submit as an addendum and identify those lands to include the size, sequence, and timing of future mining permits, utilizing a map pursuant to 1501:13-4-13(J)(29), Ohio Administrative Code.

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OTHER BUSINESS ENTITIES

Applicant's Name **American Energy Corporation**

A separate attachment is to be submitted for each business entity.

Name of business entity **Consolidated Land Company**

Statutory agent **Stephen C. Ellis #842696**

Street Address **925 Euclid Avenue, Suite 1100**

City **Cleveland** State **Ohio** Zip **44115**

Person's name **Robert D. Moore** Position **President, Treasurer, & Assistant Secretary**

Street Address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Ohio** Zip **44122**

Person's name **Michael O. McKown** Position **Secretary**

Street Address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Ohio** Zip **44122**

Person's name **Elmer A. Mottillo** Position **Assistant Secretary**

Street Address **29325 Chagrin Boulevard, Suite 300**

City **Pepper Pike** State **Ohio** Zip **44122**

Person's name Position

Street Address

City State Zip

Part 1: Section C

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT

OTHER BUSINESS ENTITIES

Applicant's Name **American Energy Corporation**

A separate attachment is to be submitted for each business entity.

Name of business entity **American Energy Corporation**

Statutory agent **CT Corporation System**

Street Address **1300 East 9th Street**

City **Cleveland** State **Ohio** Zip **44114**

Person's name **Robert E. Murray** Position **Director, President**

Street Address **43521 Mayhugh Hill Road**

City **Beallsville** State **Ohio** Zip **43716**

Person's name **Michael McKown** Position **Secretary**

Street Address **43521 Mayhugh Hill Road**

City **Beallsville** State **Ohio** Zip **43716**

Person's name **James Turner Jr.** Position **Treasurer**

Street Address **43521 Mayhugh Hill Road**

City **Beallsville** State **Ohio** Zip **43716**

Person's name **Robert Putsock** Position **Assistant Treasurer**

Street Address **43521 Mayhugh Hill Road**

City **Beallsville** State **Ohio** Zip **43716**

Part 1: Section C

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- C. (8) (a) Provide either of the following to allow for coal mining operations on the permit area:
- (i) A copy of the right-of-entry documents attached as addenda, or
 - (ii) A Right-of-Entry Affidavit
- (b) Provide either of the following to allow for coal mining operations within the underground workings:
- (i) A copy of the right-of-entry documents attached as addenda, or
 - (ii) A Right-of-Entry Affidavit

See Permit D-0425

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- C. (9) (b) List below the following information for each surface owner of land within the proposed underground workings.

OWNER NAME	COUNTY	TOWNSHIP	SECTION	LOT	T-	R-
Carol A. Baker	Belmont	Washington	26		5	4
Jason M. May	Belmont	Washington	26		5	4
Paula & Gary Moore	Belmont	Washington	26		5	4

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D. AREAS WHERE MINING IS PROHIBITED OR LIMITED - Permit Area

*N/A

- (1) Does the permit area included in this permit application include any area dedicated as a nature preserve pursuant to Chapter 1517., Ohio Revised Code? ____ Yes, ____ No. If "yes," submit proof of valid existing right.
- (2) Does the permit area included in this permit application include any area within one thousand feet of the waterlines of any wild, scenic, or recreational river dedicated pursuant to Chapter 1501., Ohio Revised Code? ____ Yes, ____ No. If "yes," submit proof of valid existing right.
- (3) Does the permit area included in this permit application include any area within the boundaries of the following systems: national park, national wildlife refuge, national trails, national wilderness preservation, national recreational areas, or wild and scenic rivers or river corridors, including those rivers under study? ____ Yes, ____ No. If "yes," submit proof of valid existing right.
- (4) Does the permit area included in this permit application include any federal lands within the boundaries of any national forest? ____ Yes, ____ No. If "yes," submit approval of the U.S. Secretary of Interior of proof of valid existing right.
- (5) Will operations in the permit area conducted under this permit adversely affect any publicly owned park or places included on the National Register of Historic Places? ____ Yes, ____ No. If "yes," submit joint approval from the chief and the federal, state, or local agency with jurisdiction over the park or places or proof of valid existing right.
- (6) Will operations in the permit area conducted under this permit affect land within one hundred feet of the outside right-of-way of a public roadway? ____ Yes, ____ No. If "yes," list the roadway(s) in the space below and submit Public Road Consent or proof of valid existing right.

*EXISTING PERMIT D-0425 WILL BE UTILIZED

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- D. (7) Will operations in the permit area conducted under this permit affect land within three hundred feet of any occupied dwelling? ____ Yes, ____ No. If "yes," list the name of the owner(s) in the space below and submit Occupied Dwelling Consent or proof of valid existing right. *N/A
- (8) Will operations in the permit area conducted under this permit affect land within three hundred feet of any public building, school, church, community or institutional building, or public park? ____ Yes, ____ No. If "yes," submit proof of valid existing right.
- (9) Will operations in the permit area conducted under this permit affect land within one hundred feet of a cemetery? ____ Yes, ____ No. If "yes," submit proof of valid existing right or appropriate authorization to relocate the cemetery.
- (10) Will operations conducted during this permit result in the extension of any part of the pit within fifty feet of horizontal distance to any adjacent land or water in which the applicant does not own either the surface or mineral rights? ____ Yes, ____ No. If "yes," list below the name(s) of the adjacent owner(s) and submit 50-foot Consent.

***EXISTING PERMIT D-0425 WILL BE UTILIZED**

E. AREAS WHERE MINING IS PROHIBITED OR LIMITED - Permit and Shadow Area

Are there areas within the proposed permit area, shadow area, or adjacent areas designated unsuitable for coal mining operations under rule 1501:13-3-07 of the Administrative Code or under study for designation in an administrative proceeding under this rule? ____ Yes, x No.

- (1) If "yes" to the item above, did the applicant make substantial legal and financial commitments in the proposed areas prior to January 4, 1977?
____ Yes, ____ No.
- (2) If "yes" to item (1) above, submit as an addendum to the permit application information supporting the assertions that the commitments were made prior to January 4, 1977.

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F. PERMIT TERM AND EXTENT - Permit and Underground Workings

- (1) Anticipated/actual date for:
 - (a) Starting mining operations February 1, 2008
 - (b) Terminating mining operations February 1, 2013
- (2) Does the applicant propose a permit term in excess of five (5) years? Yes, No. If "yes," submit an addendum with the information required by 1501:13-4-03(E)(3), Ohio Administrative Code.
- (3) Indicate the following acreage figures:
 - (a) Total Acres *0.0 (Permit area)
 - (b) Total Acres 1.5 (Underground Workings)
- (4) Horizontal extent of underground workings over life of permit in acres:
 - (a) Full Coal Recovery N/A
 - (b) Room and Pillar 1.5

G. PUBLIC NOTICE - Permit and Shadow Area

- (1) In the space below, provide the name and address of the public office where a complete copy of this permit application is to be filed.

**Belmont County Courthouse
101 West Main Street
St. Clairsville, Ohio 43950**

- (2) In the space below, list the name and address of the newspaper and submit an addendum providing the text of the advertisement that is to be published in a newspaper of general circulation in the locality of the proposed operation. Note: The advertisement is to provide the information required by paragraph (A) of rule 1501:13-5-01 of the Administrative Code.

**The Times Leader
200 South 4th Street
Martins Ferry, Ohio 43935**

***EXISTING PERMIT D-0425 WILL BE UTILIZED**

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PROOF OF PUBLICATION

The State of Ohio
County of Belmont, ss:

The undersigned, being sworn, says that he or she is an employee of Eastern Ohio Newspapers, Inc., A Corporation, publisher of the Times Leader a newspaper published in Martins Ferry, Belmont County, Ohio, each day of the week and of general circulation in said city and county; that it is a newspaper meeting the requirements of sections 7.12 and 5721.01 Ohio Revised Code as amended effective September 24, 1957; that affiant has custody of the records and files of said newspaper; and that the advertisement of which the annexed is a true copy, was published in said newspaper on each of the days in the month and year stated, as follows:

February 22, 29,

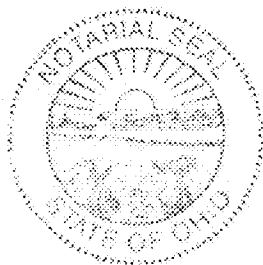
March 7/4 2008

Cancelled

Subscribed by Affiant and sworn to before me, this 18th day of March, A.D. 2008.

Rebecca L. Anderson

Notary Public



REBECCA L. ANDERSON
Notary Public, State of Ohio
My Commission Expires Nov. 25, 2011

Printer's Fee \$ 246.16

Notary's Fee \$ _____

The Times Leader
Martins Ferry, Ohio

Public Notice

American Energy Corporation, 43521 Mayhugh Hill Road, Beaverville, Ohio 43716, has submitted an adjacent area permit application numbered D-0425-7 to the Ohio Department of Natural Resources, Division of Mineral Resources Management. The proposed coal mining and reclamation operations will be in Section 26, T-5 R-4, Washington Township, Belmont County, Ohio, on the property of Carol A. Baker, Jason M. May, and Paula & Gary Moore. The proposed adjacent area permit area will encompass 1.5 acres, and is located on the Cameron 7 1/2 minute Quadrangle U.S.G.S. maps approximately 3.4 miles southwest of Amersburg Mills, Ohio. The coal mining application will remove coal using the underground mining methods, specifically the room and pillar method. The application is on file at the Belmont County Courthouse, Recorder's Office, 101 West Main Street, St. Clairsville, Ohio 43060 for public inspection. Written comments, objections or requests for an informal conference may be sent to the Ohio Department of Natural Resources, Division of Mineral Resources Management, 2045 Morse Road, Building H-3, Columbus, Ohio 43229-6693 within thirty (30) days of the last date of publication of this notice.

B. Adv. 4 - Feb. 22, 29,
1st 7 - 4

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**Addendum to Part 1, Item G(2),
American Energy Corporation**

Public Notice

American Energy Corporation, 43521 Mayhugh Hill Road, Beallsville, Ohio 43716, has submitted an adjacent area permit application numbered D-0425-7 to the Ohio Department of Natural Resources, Division of Mineral Resources Management. The proposed coal mining and reclamation operations will be in Section 26, T-5 R-4, Washington Township, Belmont County, Ohio, on the property of Carol A. Baker, Jason M. May, and Paula & Gary Moore. The proposed adjacent area permit area will encompass 1.5 acres, and is located on the Cameron 7 ½ minute Quadrangle U.S.G.S. maps, approximately 3.4 miles southwest of Armstrongs Mills, Ohio. This coal mining application will remove coal using the underground mining methods, specifically the room and pillar method. This application is on file at the Belmont County Courthouse, Recorder's Office, 101 West Main Street, St. Clairsville, Ohio 43950 for public inspection. Written comments, objections or requests for an informal conference may be sent to the Ohio Department of Natural Resources, Division of Mineral Resources Management, 2045 Morse Road, Building H-3, Columbus, Ohio 43229-6693 within thirty (30) days of the last date of publication of this notice.

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PART 2 ENVIRONMENTAL RESOURCES INFORMATION

A. CULTURAL, HISTORIC, AND ARCHEOLOGICAL INFORMATION - Permit and Planned Subsidence Area N/A

- (1) Are there any cultural or historic resources or structures listed or eligible for listing on the National Register of Historic Places within the proposed permit or planned subsidence area? ___ Yes, ___ No. If "yes," submit an addendum describing the resources and structures including the location and submit Archeology-Surface or Archeology-Underground as appropriate.
- (2) Are there any known archeological sites within the proposed permit or planned subsidence area? ___ Yes, ___ No. If "yes," submit an addendum describing the site including the location and submit Archeology-Surface or Archeology-Underground as appropriate.
- (3) If applicable, based upon the review of the proposed planned subsidence areas and the completed Archeology-Underground for the initial six months of projected mining, have any properties listed or eligible for listing on the National Register of Historic Places been identified? ___ Yes, ___ No. If "yes," submit an addendum listing each property identified.
- (4) Submit an addendum indicating the method to be used to identify historic properties on planned subsidence areas as mining progresses.

B. GEOLOGY DESCRIPTION - Permit and Shadow Area

- (1) Submit an addendum describing the geology within the proposed permit area and shadow area down to and including the first stratum below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely affected by mining. The description shall also include information on the areal and structural geology of the permit and shadow area and any other geologic parameters, which may influence the probable hydrologic consequences and protection of the hydrologic balance from material damage outside of the permit area.

See original Permit D-0425 and original addendum to Part 2, Page 16, Item B (1)

- (2) Submit an addendum describing how the areal and structural geology may affect the occurrence, availability, movement, quantity, and quality of potentially affected surface and ground waters per paragraph (C) of rule 1501:13-4-13 of the Administrative Code.

See original Permit D-0425 and original addendum to Part 2, Page 16, Item B (1)

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- B. (3) For those areas to be affected by underground mining surface operations where removal of the overburden down to the level of the coal seam will occur, submit Drilling Report - Surface(s) as required by paragraphs (C)(2)(a) and (c) of rule 1501:13-4-13 of the Administrative Code. **N/A**
- (4) For those areas within the shadow area where the stratum above the coal seam to be mined will not be removed, submit Drilling Report - Underground(s) as required by paragraphs (C)(2)(d) and (e) of rule 1501:13-4-13 of the Administrative Code.

See Adjacent Area Permit D-0425-3

C. GROUND WATER INFORMATION - Permit, Shadow Area, and Adjacent Area

- (1) Submit Ground Water Description that describes the ground water hydrology of the proposed permit area, shadow area and adjacent area. The Ground Water Description is to include information on each water bearing stratum or zone as required by paragraph (D) of rule 1501:13-4-13 of the Administrative Code, including the first water bearing stratum below the coal to be mined.

See Adjacent Area Permit D-0425-3

- (2) Are there any wells on the proposed permit area, shadow area and adjacent area? ____ Yes, x No. If "yes," submit Hydrologic Inventory.
- (3) Are there any springs on the proposed permit area, or developed springs on the shadow area and adjacent area? x Yes, ____ No. If "yes," submit Hydrologic Inventory.
- (4) Are there any public water supply sources on the proposed permit area, shadow area, and adjacent area? ____ Yes, x No. If "yes," submit Hydrologic Inventory, and show location on the hydrology map.
- (5) Submit Hydrologic Inventory for representative wells and developed springs as required by paragraph (D)(4) of rule 1501:13-4-13. Based on this data identify the seasonal variations of ground water quality and quantity.

See Adjacent Area Permit D-0425-3

D. SURFACE WATER INFORMATION - Permit, Shadow Area, and Adjacent Area

- (1) List the name of the watershed that will receive water discharges from the proposed permit, shadow, and adjacent areas as listed in the "Gazetteer of Ohio Streams" published by the Ohio Department of Natural Resources.

Sunfish Creek and Captina Creek

- (2) Are there any perennial or intermittent streams or other surface water bodies on the proposed permit, shadow area and adjacent area? ____ Yes, x No. If "yes," submit Hydrologic Inventory and show location on application and hydrology map.

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DIVISION OF MINERAL RESOURCES MANAGEMENT

Page 1

HYDROLOGIC INVENTORY

Applicant's Name American Energy Corp.

D-0425-7

1	I.D. No. of Sampling Site from Hydrology Map	DS-6.00					
2	State Plane X-Y Coordinates	X 2,426,012 Y 685,115					
3	Surface Elevation (ft msl)	1160					
4	Depth of Well Below Land Surface (feet)*	--					
5	SWL of Well Below Land Surface (ft)*	--					
6	Discharge for Spring, Stream, Pond, Mine, etc. (gpm or cfs)	0.06 gpm					
7	Date Measured/Sampled**	09-07-07					
8	pH (Standard Units)	7.56					
9	Total Acidity (mg/l CaCO ₃)	4.4					
10	Total Alkalinity (mg/l CaCO ₃)	200					
11	Total Iron (mg/l)	03.64					
12	Total Manganese (mg/l)	0.100					
13	Total Aluminum (mg/l)	1.0					
14	Total Suspended Solids (mg/l)	13					
15	Total Hardness (mg/l as CaCO ₃)	270					
16	Total Sulfates (mg/l)	43					
17	Specific Conductivity (umhos/cm at 25° C)***	530					
18	Total Dissolved Solids (mg/l)***	---					
19	Type of Supply For Surface and Public Water (pond, perennial/intermittent stream, etc.)	--					
20	High (H), Low (L), or Intermediate (I)	L					
21	Date of Last Precipitation	08-20-07					
22	Aquifer/Zone I.D. for Ground Water *	B					
23	Known Uses	Livestock					
24	Lab ID Number	0802186					
25	Name of Owner	Jason May					

* Note: If information required by items 4, 5, or 21 is unobtainable, submit as an addendum to Hydrologic Inventory a statement giving the reasons why the information is unobtainable.

** Note: All sites must be measured, unless unobtainable. For all sites that are not sampled, indicate "NS" (No Sample) in the appropriate space.

*** Note: For each sample, provide date for either item 18 or item 17.

ND / Denotes NOT DETECTED

Revised 11/05
 DNR-744-9024

AUG 05 2008

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- D. (3) Based on the data listed on Hydrologic Inventory, and other information submitted with this application, identify the seasonal variations in water quality and quantity for the streams identified in Part 2, D (2).

See Adjacent Area Permit D-0425-3

E. HYDROLOGIC DETERMINATION - Permit, Shadow Area, and Adjacent Area

Based on the information submitted in response to items B, C and D in this part of the permit application, submit an addendum describing the probable hydrologic consequences of this proposed underground mining operation on the hydrologic regime of the proposed permit area, shadow area and adjacent area. The description shall include findings on each of the following items:

- (1) The consequences of the proposed operation on the contents of total suspended and dissolved solids, total iron, total manganese, acidity and pH;
- (2) Whether adverse impacts may occur to the hydrologic balance; and
- (3) The impact the proposed operation will have on:
 - (a) Sediment yield from the disturbed area
 - (b) Flooding and stream flow alteration or diminution
 - (c) Ground water and surface water availability

See addendum to Part 2, Page 17, Item E (1, 2, 3) in original Permit D-0425

F. ALTERNATIVE WATER SUPPLY INFORMATION - Permit, Shadow Area and Adjacent Area

- (1) Based on the response in Part 2, item E, submit an addendum identifying the extent to which the proposed coal mining activities may proximately result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit area, shadow area and adjacent area that is used for domestic, agricultural, industrial or other legitimate use.

See addendum to Part 2, Page 17, Item F (1 & 2) in original Permit D-0425

- (2) If contamination, diminution or interruption may result, submit an addendum identifying the alternative sources of water supply that could be developed to replace the existing sources including information on water availability and suitability of alternative sources for existing pre-mining uses and post-mining land use.

See addendum to Part 2, Page 17, Item F (1 & 2) in original Permit D-0425

G. LAND USE INFORMATION - Permit Area N/A

- (1) Describe the uses of the land within the proposed permit area existing at the time of the filing of this permit application and provide a map which delineates the area of each land use.
- (2) Was the land use described in item G(1) above changed within five years before the anticipated date of beginning this proposed mining operation? ☐ Yes, ☐ No. If "yes," submit an addendum describing the historic use of the land.
- (3) Analyze the capability of the land within the proposed permit area before any mining to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover and hydrology of the proposed permit area.
- (4) Analyze the productivity of the land within the proposed permit area before any mining to include average yields obtained under high level of management.
- (5) Is any land within the proposed permit area classified as prime farmland? ☐ Yes, ☐ No.
- (6) Submit an addendum describing the use of the land within the permit area, including the creation of permanent water impoundments, that is proposed to be made of the land following reclamation, including information regarding the utility and capacity of the reclaimed land to support a variety of alternative uses.
- (7) Are there existing land use classifications under local law of the proposed permit area? ☐ Yes, ☐ No. If "yes," describe the land use classification and submit as an addendum to the permit application, the comments of the governmental agency that would have to initiate, implement, approve or authorize the proposed use of the land following reclamation. If "no," describe the sources of information on which the determination was made.

- G. (8) Submit Surface Owner Comments from the legal or equitable owner of record of the surface of the proposed permit area concerning the proposed land use.
- (9) Describe the consideration that has been given to making all of the proposed coal mining activities consistent with surface owner plans and applicable state and local land use plans and programs.
- (10) Describe how the proposed land use is to be achieved and the necessary support activities that may be needed to achieve the proposed land use.
- (11) Is the post-mining land use to be different from the premining land use? ___ Yes, ___ No. If "yes," submit Land Use Change Notification.
- (12) Has the proposed permit area been previously mined? ___ Yes, ___ No. If "yes," provide the following information, if available.
- (a) Type of mining method _____
 - (b) Coal seam mined _____
 - (c) Non-coal mineral mined _____
 - (d) Extent of mining (acres) _____
 - (e) Approximate dates _____
 - (f) Land use preceding mining _____

H. PRIME FARMLAND INVESTIGATION - Permit Area N/A

- (1) Does the proposed permit area include any land that is prime farmland, taking into consideration the negative determinations listed in paragraph (L) (2) of rule 1501:13-4-13 of the Administrative Code? ___ Yes, ___ No.
- (2) If the response to item H.(1) is "yes," submit PFL Restoration Plan.
- (3) If the response to item H.(1) is "no," submit Negative PFL Determination.

I. FISH AND WILDLIFE PLAN N/A

Describe the fish and wildlife resources for this permit area and adjacent area in accordance with paragraph (P) (1) (a-b) of rule 1501:13-4-05 of the Administrative Code.

PART 3 RECLAMATION AND OPERATIONS PLAN

A. GENERAL REQUIREMENTS - Permit Area (Items A (1) and A (2) - Permit and Underground Workings)

- (1) Submit an addendum describing the type and method of coal mining procedures for this application. Explain how these procedures will maximize the use and conservation of the coal resources.

See addendum to Part 3, Item A(1)

- (2) Indicate the anticipated annual and total production of coal from this proposed operation.

Annual 8300 Total 8300

- (3) Will this operation be combined with surface coal mining activities to the extent that contemporaneous reclamation of areas disturbed by surface mining will be delayed or such that the underground workings will be within 500 feet of the surface mining activities? Yes, x No. If "yes," submit Variance for Delay in Contemporaneous Reclamation.
- (4) Are experimental mining practices to be employed in the proposed mining operations? Yes, x No. If "yes," submit as an addendum to the permit application, the description, maps and plans required by paragraph (B) of rule 1501:13-4-12 of the Administrative Code.
- (5) Are mountaintop removal mining practices to be employed in the proposed mining operations? Yes, No. If "yes," submit as an addendum to the permit application the information required by paragraph (C) of rule 1501:13-4-12 of the Administrative Code. **N/A**
- (6) Are the natural pre-mining slopes within the permit area in excess of twenty (20) degrees? Yes, No. If "yes," submit an addendum demonstrating compliance with the steep slope mining provisions of paragraph (D) of rule 1501:13-4-12 and 1501.13-13-05 of the Administrative Code. **N/A**
- (7) Is augering-highwall mining proposed within the permit area? Yes, No. If "yes," submit Auger-Highwall Mining. **N/A**
- (8) Are variances from approximate original contour to be employed for the proposed underground mining surface operations? Yes, No. If "yes," submit an addendum to the permit application demonstrating compliance with paragraph (E) and/or (K) of rule 1501:13-4-12 of the Administrative Code. **N/A**

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ADDENDUM TO PART 2, ITEM A(1)
American Energy Corporation
Century Mine
Permit D-0425
Page 1 of 1

The application area will be mined by the Room and Pillar method. A three entry sub-main will be developed off of the current South Mains entries, parallel to the East mains entries. These entries will be driven using continuous miners, shuttle cars and roof bolters. Primary use will be for ventilation, transportation of men and materials, and haulage. No second mining is planned in the sub-main entries. Blocks of coal will be left in place to support the mine roof. No subsidence is expected to occur in this area.

Developing these entries will provide access to the coal reserve owned by Consolidated Land Company northeast of the D 0425-3 permit area. Utilizing the current mine entrance and slope is the most cost effective way to access the reserves and will decrease the amount of surface disturbance necessary to mine the area.

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- A. (9) Will access to the underground workings be gained through a drift entry?
____ Yes, x No. If "yes," provide as an addendum sufficient information to determine the location of the entry relative to the highest elevation of the coal reserve. Is the drift entry located so as to eliminate the potential for a gravity discharge? ____ Yes, ____ No. If "no," the applicant must demonstrate that the coal seam is not acid or iron producing. Provide an analysis of the strata immediately above and below the coal, and the coal seam itself, sufficient to demonstrate that the water quality from the entry will meet effluent limitations without treatment.
- (10) For entries to underground workings other than drift entries, provide as an addendum sufficient information to determine the location of the entry relative to the coal reserve. Are the entries located so as to eliminate the potential for a gravity discharge? x Yes, ____ No. If "no," provide the following demonstration:
- (a) The gravity discharge will meet effluent limitations without treatment, or
 - (b) The water will be treated to meet effluent limitations and provisions will be made for consistent maintenance of the treatment facility throughout the anticipated period of gravity discharge
- (11) Will the permanent entry seals be designed to withstand the maximum anticipated hydraulic head when the operations are abandoned? ____ Yes, ____ No. If "yes," submit the appropriate information demonstrating that this will be accomplished. If "no," provide a typical plan for the seals to be used to close the mine entries pursuant to applicable state and federal regulations. **N/A**
- (12) Submit an addendum describing the construction, modification, maintenance, and removal (unless to be retained for post-mining land use), including the proposed engineering techniques and major equipment to be used, of the following facilities:
- (a) Dams, embankments and other impoundments. Do any of the plans for water, sediment or slurry impoundments meet the requirements of 30 CFR 77.216? ____ Yes, ____ No. If "yes," submit as an addendum a plan that addresses each of the requirements in 30 CFR 77.216-2
N/A
 - (b) Overburden and topsoil handling and storage areas and structures
N/A

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- A. (12) (c) Coal removal, handling, storage, cleaning and transportation areas and structures; including, but not limited to, preparation plants, beltlines, tipples, rail sidings and primary roads. For roads, conveyors and rail systems, submit an addendum describing the information required pursuant to paragraph (L) of rule 1501:13-4-14 and 1501:13-10-01 of the Administrative Code. **N/A**
- (d) Spoil removal, handling, storage, transportation and disposal areas and structures, including underground development waste or excess spoil disposal sites. If underground development waste or excess spoil is to be generated, submit an addendum describing the information required by paragraphs (O) and (P) of rule 1501:13-4-14 and 1501:13-9-07 of the Administrative Code.
The refuse from the application area will be disposed on the D=0425-2 permit area. There is sufficient room to allow disposal at current production rates through the year 2010.
- (e) Mine facilities such as portal/shaft development, boreholes, de-gas holes, vents, office or shop buildings and maintenance facilities
See original Permit D-0425
- (f) Water and air pollution control facilities
See original Permit D-0425
- (13) Provide an estimate of the cost per acre to reclaim the permit area.
_____ per acre **N/A**
- (14) Will the proposed operation include any of the following:
- (a) Disposal of coal mine waste from a wash plant, tippie, or other source? _____ Yes, x No. If "yes," submit Coal Waste Plan and, if applicable, the information required by paragraph (H) of rule 1501:13-4-14 of the Administrative Code.
- (b) Disposal of fly ash or other noncoal wastes? _____ Yes, x No. If "yes," submit an addendum which addresses the disposal material and a detailed disposal plan, pursuant to paragraph (E) of rule 1501:13-9-09 of the Administrative Code.
- (c) Return of slurry or other mine waste or material into the abandoned underground workings? _____ Yes, x No. If "yes," comply with provisions contained in paragraph (N) of rule 1501:13-4-14 and paragraph (Q) of 1501:13-9-04 of the Administrative Code, and submit copies of the required MSHA approvals as an addendum.
- (15) Will the proposed operation include beneficial use of coal combustion by-products (CCBs) pursuant to Section 1513.02 of the Ohio Revised Code? _____ Yes, x No. If "yes," submit CCB Plan.

B. EXISTING STRUCTURES - Permit Area **N/A**

- (1) Are any existing structures proposed to be used in connection with or to facilitate the coal mining and reclamation operation? _____ Yes, _____ No. If "yes," submit as an addendum to the permit application a description of each structure. The description shall include the information required by paragraph (B)(1) of rule 1501:13-4-14 of the Administrative Code.
- (2) Are any existing structures proposed to be modified or reconstructed for use in connection with or to facilitate the coal mining and reclamation operation? _____ Yes, _____ No. If "yes," submit as an addendum to the permit application, a compliance plan for each structure. The plan shall include the information required by paragraph (B)(2) of rule 1501:13-4-14 of the Administrative Code.

C. BLASTING - Permit Area N/A

Will blasting occur within 25 feet of the surface during shaft and portal development or other on-site development? ___ Yes, ___ No. If "yes," submit Blasting - Underground Operations.

D. RECLAMATION PLAN - GENERAL REQUIREMENTS - Permit Area (Item D (12)- Permit, Shadow and Adjacent Area)

- (1) Provide a detailed timetable for the completion of backfilling and grading for each mining year.

N/A

- (2) Provide a detailed timetable for the completion of resoiling for each mining year.

N/A

- (3) Provide a detailed timetable for the completion of planting for each mining year.

N/A

- (4) Describe the plan for backfilling, compacting and grading of the disturbed permit area, including the disposal of all mine generated debris.

N/A

- (5) Submit an addendum describing the plan for the removal, storage, redistribution and stabilization of topsoil, subsoil, or approved alternative resoiling material to meet the requirements of rule 1501:13-9-03 of the Administrative Code. If an alternative resoiling material is to be used, submit ARM Plan.

N/A

- (6) Provide the following information for the revegetation plan: N/A

- (a) Schedule for revegetation to include planting of temporary vegetation.

D. (6) (b) List the species and amounts per acre of seeds and seedlings to be used.

(c) Describe the methods to be used in planting and seeding.

(d) Describe the mulching techniques.

(7) Describe the soil testing plan for evaluation of the results of topsoil handling and reclamation procedures related to revegetation.

N/A

(8) Submit an addendum describing the measures to be employed to handle and place acid or toxic-forming materials in accordance with paragraph (J) of rule 1501:13-9-04 and paragraph (J) of rule 1501:13-9-14 of the Administrative Code.

N/A

(9) Describe the measures, including appropriate cross-sections and maps, to be used to plug, case or manage mine openings or bore holes other than those entries utilized to gain access to the underground workings, pursuant to rule 1501:13-9-02 of the Administrative Code.

N/A

(10) Is the reclamation plan consistent with local physical, environmental, and climatological conditions? ___ Yes, ___ No.

N/A

(11) Identify any other applicable air and water quality laws and regulations and health and safety standards and describe the steps to be taken to comply with each.

N/A

(12) Submit an addendum describing the plan for minimizing to the extent possible and using the best technology currently available disturbances and adverse impacts of the operation on fish and wildlife and related environmental values, including compliance with the Endangered Species Act, and achieving enhancement of such resources where practical for the permit, shadow and adjacent areas.

See addendum to Part 3, Page 24, Item D (12) in original Permit D-0425

E. RECLAMATION PLAN-PROTECTION OF HYDROLOGIC BALANCE - Permit and Adjacent Area

Submit an addendum describing the measures to be taken during and after the proposed mining operations to:

- (1) Minimize disturbance to the hydrologic balance, including quality and quantity, within the permit and adjacent areas and to prevent material damage outside the permit area;
- (2) Protect the rights of present users of surface and ground water;
- (3) Avoid acid or toxic drainage.

See addendum to Part 3, Page 25, Item E (1, 2, 3) in original Permit D-0425

F. GROUND WATER AND SURFACE WATER MONITORING PLAN - Permit and Shadow Area

Based upon the probable hydrologic consequences determination and analysis of all baseline hydrologic, geologic and other information submitted in this application, address the following items in accordance with paragraph (F) of rule 1501:13-4-14 and paragraph (N) of rule 1501:13-9-04 of the Administrative Code.

- (1) In addition to the quality and quantity parameters required for quarterly monitoring and NPDES monitoring, will any other parameters be monitored? ____ Yes, x No. If "yes," indicate the parameter(s) and the site(s) where such monitoring will occur.
- (2) Do you propose or anticipate the need for a variation in the required monitoring frequency for ground and surface water sites and monthly monitoring for NPDES? ____ Yes, x No. If "yes," describe the variation in frequency and the monitoring sites to be affected.
- (3) Describe the plan for collection, recording, and reporting of all surface and ground water quality and quantity monitoring data, including data collected for the NPDES program.

See addendum to Part 3, Page 25, Item F (3) in D-0425-3

- N/A

- N/A

- N/A

- Other (specify) _____

N/A

- NA

- N/A

H. PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES - Permit and Planned Subsidence Area

Will the proposed coal mining activities adversely affect any public parks and places listed on the National Register of Historic Places? ____ Yes, x No. If "yes," submit an addendum describing the measures to minimize or prevent these impacts.

N/A

I. MINING NEAR OR THROUGH A PUBLIC ROAD - Permit Area

If the response to Part 1, item D(6) of the permit application is "yes," submit an addendum describing the measures to be used to ensure that the interests of the public and landowners are protected.

N/A

J. SUBSIDENCE CONTROL SURVEY - Shadow Area

- (1) Is this a full coal recovery operation? ____ Yes, x No. If "yes," complete Subsidence Control Survey and following items J (2) and (3).
- (2) Does the shadow area contain any of the structures or facilities listed in 1501:13-12-03(J)(1-3)? ____ Yes, x No. If "yes," complete Subsidence Control - Protection of Specific Structures, and specifically identify the structures or facilities on the application map.
- (3) Are any aquifers or bodies of water that serve as a significant water source for any public water supply system present in the shadow area? ____ Yes, x No. If "yes," complete Subsidence Control - Protection of Specific Structures, and specifically identify the areas on the application map.

K. SUBSIDENCE CONTROL PLAN - Shadow Area

- (1) Submit an addendum that describes the method of coal removal, and indicates the size, sequence, and timing of the development of the underground workings.

See addendum to Part 3, K (1) & Timing, Structure, Contour, and Parcel Map.

- (2) Utilizing the application map, specifically indicate areas where planned subsidence mining methods (i.e. longwall or pillar extraction) will be used.

N/A, nonsubsiding area – main entries

- (3) Utilizing the application map, specifically indicate room-and-pillar mining areas where subsidence will be prevented or minimized.

See D-0425 application map

ADDENDUM TO PART 3, ITEM K(1)
AMERICAN ENERGY CORPORATION

The application area is for room and pillar mining.

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- K. (4) Submit as an addendum, for those areas mapped as room-and-pillar mining, the following information: **See addendum to Page 28, Part 3, K(4)**
- (a) The maximum and average overburden thickness.
 - (b) The projected maximum extraction ratios for mains, submains, and butt sections, as well as the existing ranges of values for the same areas.
 - (c) Projected maximum width of entries and cross cuts throughout the mine, as well as the existing ranges of values for the same areas.
 - (d) The center spacing for entries and cross cuts.
 - (e) Minimum pillar dimensions for mains, submains, and butt sections, as well as the existing ranges of values for these areas.
 - (f) The barrier pillar width between butt sections, as well as the existing ranges of values for the same areas.
 - (g) The engineering properties of the clay/shale, or other soft rock material in the roof and floor of the mine.
 - (h) Measures to be taken on the surface to prevent damage or lessening of the value or reasonably foreseeable use of the surface, if any.
 - (i) The minimum pillar safety factor, for protected structures, based upon coal strength and load.
 - (j) Methods and calculations used to determine the safety factor.
- (5) Submit as an addendum for those areas mapped as full coal recovery mining, the following information: **N/A**
- (a) For each method to be employed (i.e. longwall or pillar extraction), provide the following:
 - i) Rate and direction of dip for the coal seam.
 - ii) Dimensions of panels or butt sections.
 - iii) Thickness of coal to be extracted (mining height).
 - iv) Maximum angle of draw.
 - v) Maximum anticipated subsidence.
 - vi) Width of barrier pillars or chain pillars between sections or panels.
 - vii) The maximum extraction ratio within a pillaring section.
 - (b) The anticipated effects of planned subsidence upon the land and water resources identified in the subsidence control survey and survey of ground and surface water resources.
 - (c) The measures to be taken to mitigate the anticipated effects of planned subsidence to the land and water resources.
 - (d) The anticipated effects of planned subsidence upon the structures identified in the subsidence control survey.

Engineering Properties for Main Development Entries

- (a) The maximum overburden is 550 ft. and the average is 510 ft. in the application area.
- (b) The projected extraction ratio is a minimum of 29 percent and a maximum of 40 percent.
- (c) Entries and crosscuts will be cut a minimum of 16 ft. wide and a maximum of 18 ft. wide.
- (d) Entries will be developed of 75 ft. centers and the crosscut will be 150 ft. on center.
- (e) The minimum pillar dimensions will be 57 ft. x 132 ft. with a load bearing capacity of $2.15E+06$ tons.
- (f) n/a
- (g) see table 13 in D-0425-4.
- (h) In order to prevent damage to the surface, pillars with safety factors greater than 2.0 will be utilized, and no pillar extraction will take place.
- (i) The minimum pillar safety factor is 4.62 for the submains based upon coal strength and load.
- (j) The Analysis of Retreat Mine Pillar Stability (ARMPS) program, developed by the National Institute for Occupational Safety and Health (NIOSH), was used to determine pillar safety factors. Please refer to D-0425-4 for information about the ARMPS method of pillar design.

See attached sheets from The Analysis of Retreat Mine Pillar Stability (ARMPS) program 5.1.18.

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TABLE 13

COMPRESSIVE STRENGTH

PITTSBURGH (NO. 8) FLOOR

ROCK CORE COMPRESSIVE STRENGTH TEST RESULTS				LITHOLOGIC DESCRIPTION
OHIO VALLEY COAL COMPANY				
Boring N91-3				
Sample No.	Depth (ft.)	Unit Wt. (pcf)	Compressive Strength (psi)	
1	580.8 - 580.9	185.7	9444	Calcareous Shale
2	582.3 - 582.6	183.2	3930	Claystone
3	585.1 - 585.4	168.9	9453	Shale
4	587.2 - 587.5	162.9	3767	Shale
5	589.3 - 589.6	188.9	2995	Shale
Boring N91-4				
Sample No.	Depth (ft.)	Unit Wt. (pcf)	Compressive Strength (psi)	
1	596.2 - 596.5	183.2	10272	Claystone*
2	600.4 - 600.7	165.1	6535	Shale
3	602.9 - 603.2	163.9	5034	Shale
4	604.2 - 604.5	158.3	9643	Shale
Boring N91-6				
Sample No.	Depth (ft.)	Unit Wt. (pcf)	Compressive Strength (psi)	
1	453.6 - 453.9	165.9	5288	Shale
2	454.0 - 454.3	170.9	12590	Calcareous Shale
3	455.0 - 455.3	161.6	9918	Calcareous Shale
4	455.3 - 455.6	163.0	9752	Calcareous Shale
5	456.8 - 457.1	161.0	6903	Shale
6	457.3 - 457.6	163.3	6220	Shale
7	458.0 - 458.3	161.4	7586	Shale
8	464.3 - 464.7	160.6	5699	Shale

* Strength and density too high for claystone, may have had limestone nodule in prepared sample.

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ARMPS module build: 5.1.13
 Project File: Untitled
 Input Units: (ft) (psi)

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DIVISION OF MINERAL RESOURCES
 CAMBRIDGE

[PROJECT TITLE]

[PROJECT DESCRIPTION]

[DEVELOPMENT GEOMETRY PARAMETERS]

Entry Height.....7 (ft)
 Depth of Cover.....550 (ft)
 Crosscut Angle.....90 (deg)
 Entry Width.....18 (ft)
 Number of Entries.....3
 Crosscut Spacing.....150 (ft)
 Center to Center Distance #1.....75 (ft)
 Center to Center Distance #2.....75 (ft)

[DEFAULT PARAMETERS]

In Situ Coal Strength.....900 (psi)
 Unit Weight of Overburden.....162 (pcf)
 Breadth of AMZ.....117 (ft)
 AMZ set automatically

[RETREAT MINING PARAMETERS]

Loading Condition.....DEVELOPMENT

[ARMPS STABILITY FACTORS]

DEVELOPMENT.....4.28

[DATA ABOUT THE ACTIVE MINING ZONE (AMZ)]

AMZ Width.....150.0 (ft)
 AMZ Breadth.....117.0 (ft)
 AMZ Area.....17550.0 (ft)*(ft)
 Extraction Ratio Within AMZ.....0.33
 Development Load on AMZ.....7.82E+05 (tons)

TOTAL LOADINGS ON AMZ, INCLUDING TRANSFER FROM BARRIERS

LOAD	ABUTMENT	LTRANSBAR	LTRANSREM	TOTAL
CONDITION	LOAD (tons)	(tons)	(tons)	(tons)
DEVELOPMENT	0.00E+00	0.00E+00	0.00E+00	7.82E+05

R-Factor for front abutment is the percent of the total front abutment load that is applied to the AMZ.

R-Factor for side abutment is the percent of the total side abutment load that is applied to the barrier pillar (the remainder is applied to the AMZ).

LTRANSBAR is the load transferred to the AMZ from the barrier pillar between the side and active gob if the barrier's SF is less than 1.5.

LTRANSREM is the load transferred to the AMZ from the remnant barrier between the side and active gob if the remnant's SF is less than 1.5.

[PILLAR PARAMETERS]

PILLAR	ENTRY	MINIMUM	MAXIMUM
--------	-------	---------	---------

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	CENTER (ft)	DIMENSION (ft)	DIMENSION (ft)
1	75.00	57.00	132.00
2	75.00	57.00	132.00

PILLAR	AREA (ft)*(ft)	STRENGTH (psi)	LOAD-BEARING CAPACITY (tons)
1	7.52E+03	3.96E+03	2.15E+06
2	7.52E+03	3.96E+03	2.15E+06

TOTAL LOAD-BEARING CAPACITY OF PILLARS WITHIN AMZ: 3.35E+06 (tons)

To view the Distribution of Pillar Load Bearing Capacity
select 'View Plots->Settings->Pillar Load Bearing Capacity'

[BARRIER PILLAR PARAMETERS]

none

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APMP-3: Pile Load Bearing Capacity (tons) / (ft) Entries from left to right

150	2147004	344700
150		
150		
150		
75	75	

ORIGINAL

WILLIAM J. SIPLIVY, P.E., C.P.C.

Geotechnical Engineer

4667 Turnberry Trail
Stow, OH 44224

NAME

NUMBER

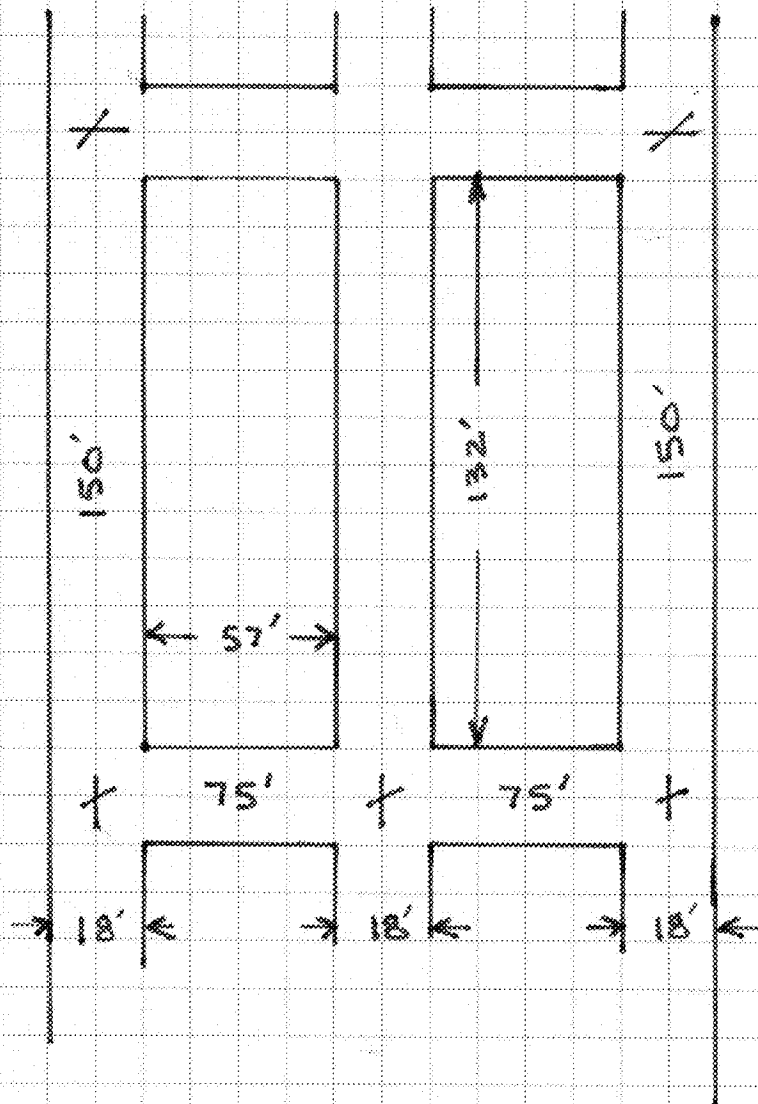
Killer Extraction %
Century D-0425-7

SHEET NO.

OF 1

BY

WJS DATE 14 Jan '08



3 ENTRY SYSTEM ON 75' x 150' CENTERS.
MAXIMUM ENTRY WIDTH 18'.

$$\text{Area}_{\text{tributary}} = (75 + 75 + 18)(150') = 25,200 \text{ Ft}^2$$

$$\text{Area}_{\text{pillar}} = (57 \times 132)(2) = 15048 \text{ Ft}^2$$

$$\% \text{ EXTRACTION} = 1 - \frac{15048}{25,200} = \underline{\underline{40\%}}$$

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- K. (5) (e) The proposed measures to be taken to mitigate anticipated effects to structures.
- (f) The proposed measures to determine the extent of mining related damages including a presubsidence survey with an indication of the timing of the survey.
- (g) The provisions for repair and/or compensation for damages to structures.
- (h) Describe the monitoring, if any, needed to determine the commencement and degree of subsidence so that, when appropriate, other measures can be taken to prevent, reduce, or correct material damage in accordance with rule 1501:13-12-03 of the Administrative Code.
- (6) Will planned subsidence operations be conducted within the angle of draw of urbanized areas, cities, towns, communities, industrial or commercial buildings, major impoundments, or perennial streams? ___ Yes, x No. If "yes," describe any measures or activities that will prevent a condition or practice that could result in an imminent danger to the health or safety of the public.
- (7) Will planned subsidence operations be conducted within the angle of draw of transmission pipelines? ___ Yes, x No. If "yes," describe the procedural plan to avoid the creation of a situation of imminent danger to the health and safety of the public.

PART 4 FORMAT AND CONTENT

A. FILING OF ADDENDA

If an addendum is needed to present the information required by the items in the permit application, the addendum is to be submitted with the permit application and each page, map, plan or other document in the addendum should include the applicant's name and indicate to what item the addendum applies. For example, "Addendum to Part 3, item K(2)Zebco Coal Company."

B. Provide the information requested below for all technical data submitted in the application.

Identification of Technical Data (1)	Person/Organization that Collected Data and Date	Methodology for Collecting Data	Person/Organization that Collected Data and Date	Methodology Used to Analyze Data
See Permit D-0425				

(1) The technical data is to be identified by referencing the particular item in the application for which the data was used in preparing the response (e.g. Part 2, B(1); Hydrologic Inventory; Part 4, A).

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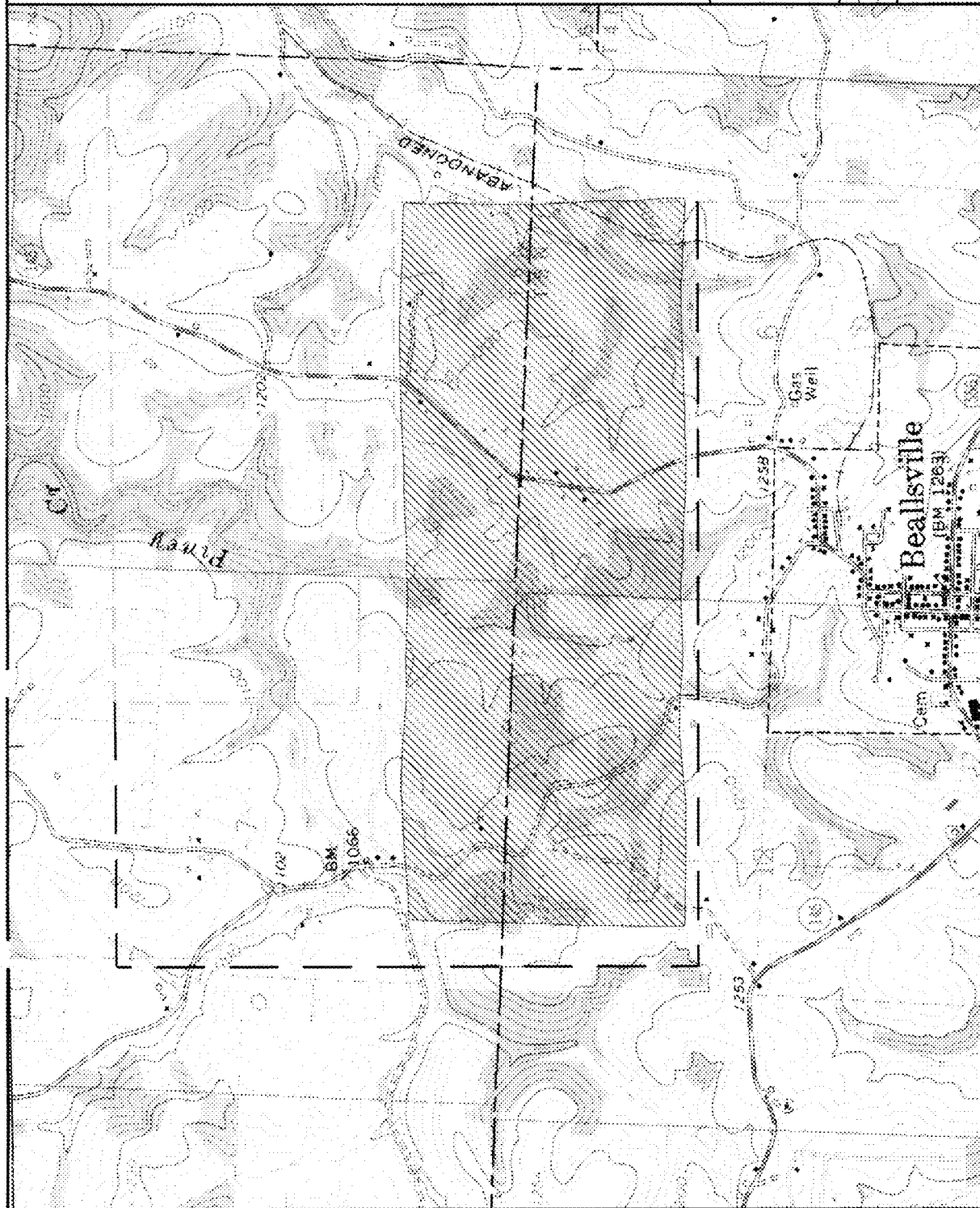
03/06
DNR-744-9009

- C. Provide the name, address, and position of officials of each private or academic research organization or governmental agency contacted in the preparation of the application for information on land uses, soils, geology, vegetation, fish and wildlife, water quantity and quality, air quality, and archeological, cultural, and historic features.

Name and Address of Official	Position of Official	Name of Agency/ Organization	Type of Information (e.g. Geology)
See Permit D-0425			

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DNR-744-9009

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Located on the Woodfield
7 1/2 Minute U.S.G.S. Quadrangle Map

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Legend

Full Coal Recovery/
Longwall Mining Acreage

Permit D-0425

Proposed Permit Limits

American Energy Corporation

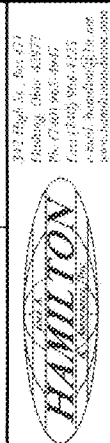
Beallsville Adjacent Area Permit D-0425-14

Located in Sections 1 & 2, Wayne Township, 18th USM, Belmont County, Ohio
Sections 5 & 12, Sandusky Township, 18th USM, Belmont County, Ohio

Archaeology - Underground

Full Coal Recovery Area Map

Scale	1" = 1000'	Contour Interval	20'
Drawn By:	DJB	Comm. #:	02-01-08
Date:	12-02-08	Revised Date:	02-05-10



D 425-14

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